CLAIMS

25. A process of using an enterobacterium OmpA protein, or a fragment thereof, for preparing a composition intended for specific targeting of a biologically active substance, which is associated with it, to antigen-presenting cells, wherein said enterobacterium OmpA protein, or a fragment thereof, is internalized into the antigen-presenting cells.

26. The process of claim 25, wherein said enterobacterium OmpA protein, or a fragment thereof, binds specifically to antigen-presenting cells.

27. The process of claim 25, wherein said antigen-presenting cells are chosen from dendritic cells, monocytes and B lymphocytes.

28. The process of claim 27, wherein said antigen-presenting cells are dendritic cells.

29. The process of claim 25, wherein said enterobacterium OmpA protein, or a fragment thereof, is obtained from a culture of said enterobacterium, using an extraction process.

30. The process of claim 25, wherein said enterobacterium OmpA protein, or a fragment thereof, is obtained by a recombinant process.

31. The process of claim 25, wherein said enterobacterium is Klebsiella *pneumoniae*.

32. The process of claim 31, wherein the amino acid sequence of said OmpA protein, or a fragment thereof, comprises:

a) the amino acid sequence having sequence SEQ ID No 2;

b) the amino acid sequence of a sequence having at least 80% homology with the sequence SEQ ID No 2; or

c) the amino acid sequence of a fragment, of at least 5 amino acids, of a sequence as defined in a) or b).

33. The process of claim 25, wherein said biologically active substance is chosen from peptides, lipopeptides, polysaccharides, oligosaccharides, nucleic acids, lipids and chemical substances.

34. The process of claim 33, wherein said biologically active substance is coupled by covalent attachment with said OmpA protein, or a fragment thereof.

35. The process of claim 34, wherein the coupling by covalent attachment is chemical coupling.

36. The process of claim 35, wherein one or more attachment elements are introduced into said OmpA protein, or a fragment thereof, and/or into said biologically active substance, in order to facilitate the chemical coupling.

37. The process of claim 36, wherein said attachment element introduced is an amino acid.

38. The process of claim 34, wherein said biologically active substance coupled by covalent attachment with said OmpA protein, or a fragment thereof, is a recombinant chimeric protein resulting from the expression of a nucleic acid construct encoding said biologically active substance and said OmpA protein, or a fragment thereof.

39. The process of claim 38, wherein said biologically active substance is an antigen or a hapten.

40. A method for modifying the immune response to an antigen or a hapten with a composition intended for specific targeting of a biologically active substance, which is associated with it, to antigen-presenting cells, wherein an enterobacterium OmpA protein, or a fragment thereof, is internalized into the antigen-presenting cells.

41. The method of claim 40 for improving the immune response to an antigen or a hapten.

42. The method of claim 40 for preventing or treating a disease.

43. The method of claim 42, for preventing or treating a disease with an active substance, the effectiveness of which is modified by and/or linked to the internalization thereof by dendritic cells.

44. The method of claim 43, for preventing or treating cancers, preferably cancers associated with a tumor antigen, autoimmune diseases, allergies, graft rejections, cardiovascular diseases, diseases of the central nervous system, inflammatory diseases, infectious diseases or diseases linked to an immunodeficiency.

45. The method of claim 44, for preventing or treating an infectious disease or a cancer associated with a tumor antigen.

46. A pharmaceutical composition effective in the method of claim 42 which comprises an adjuvant of immunity.

47. The pharmaceutical composition of claim 46 which is vehicled in a form which makes it possible to improve the stability and/or immunogenicity thereof.

48. The pharmaceutical composition of claim 46 which is vehicled in the form of a liposome, of a viral vector, or of a transformed host cell capable of expressing a recombinant chimeric protein resulting from the expression of a nucleic acid construct encoding said biologically active substance and said OmpA protein, or a fragment thereof.